

Mass versus targeted IPT?

Dr Tom Boyles

Preventing TB

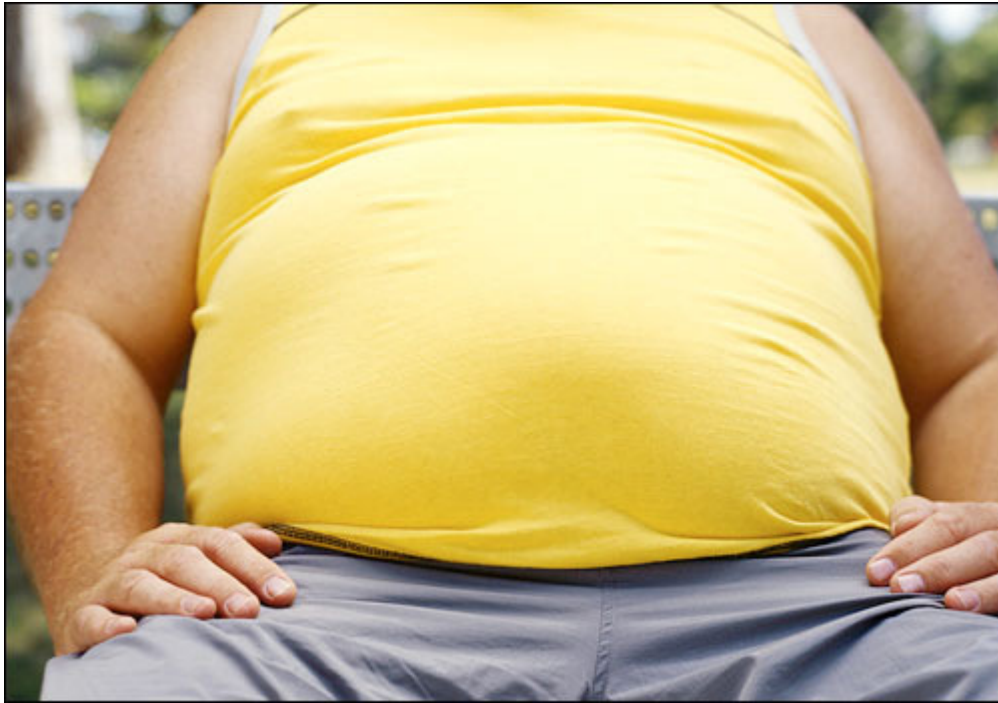
- Infection control
- Intensive case finding
- IPT



Preventing TB

- Infection control
- Intensive case finding
- IPT
- Initiating ART
- Diabetes prevention
- Smoking cessation
- Vitamin D?
- Vaccine ?



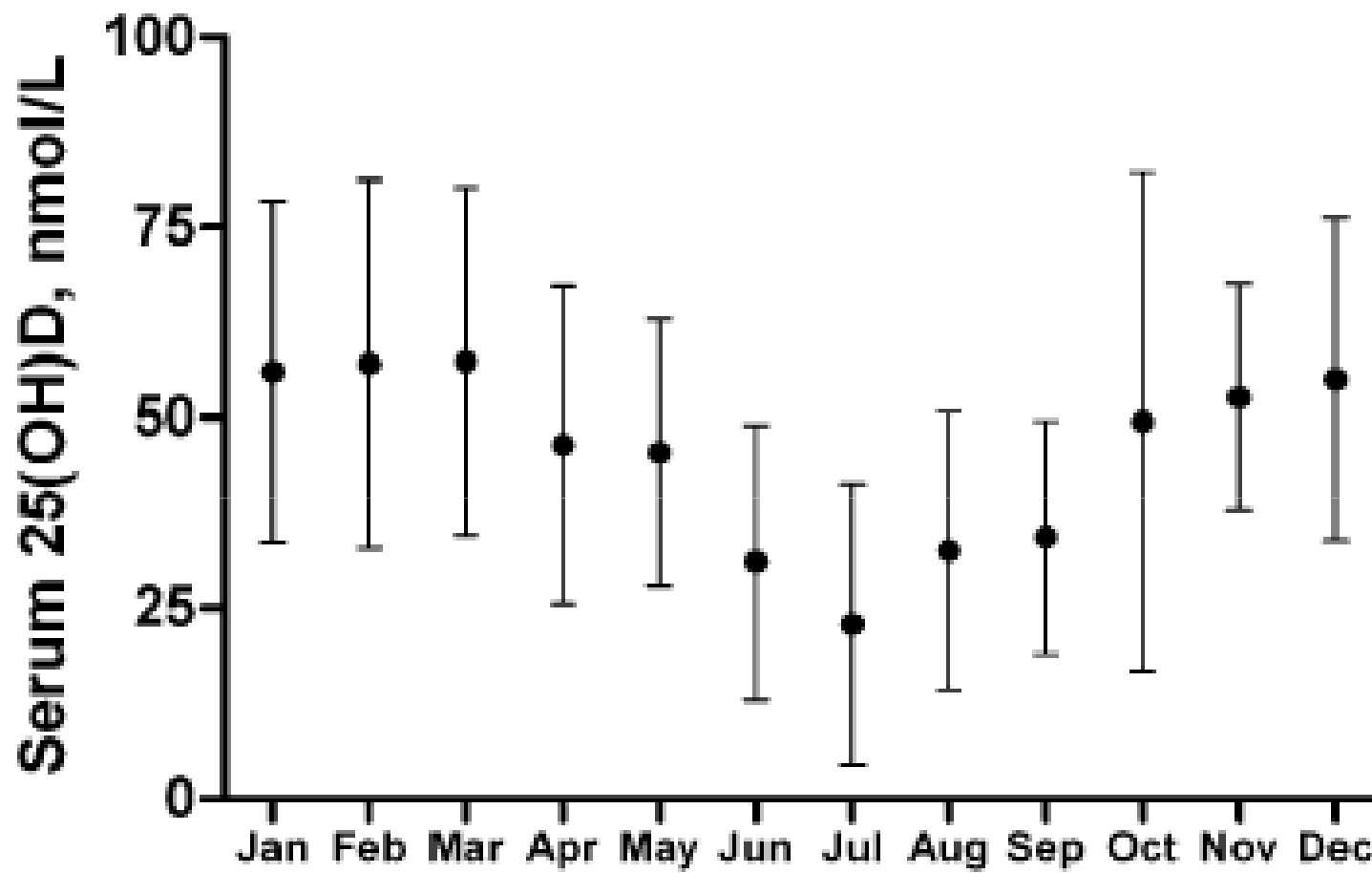


Diabetes Mellitus – X3

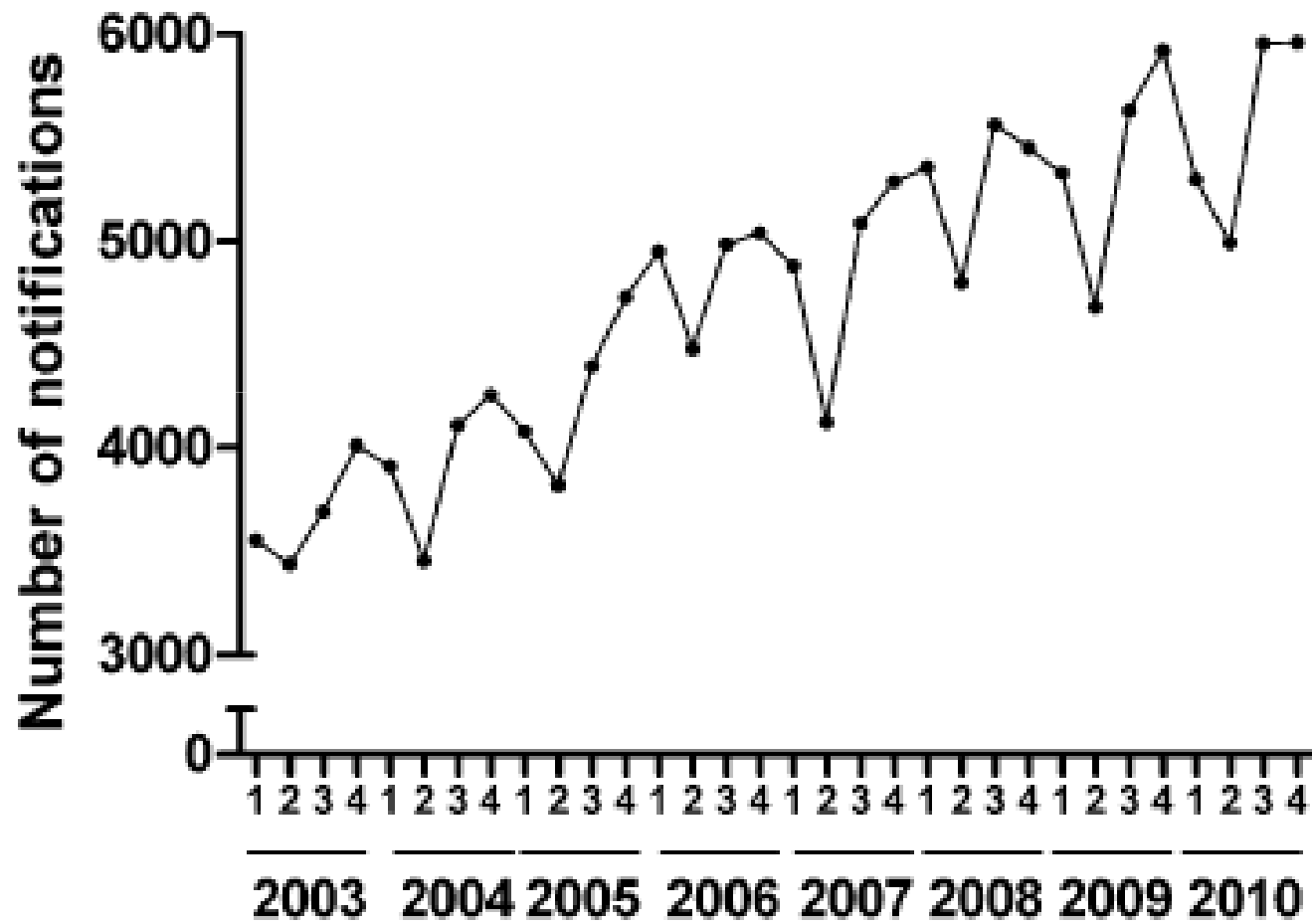


Smoking – X2

Van Zyl Smit et al. Eur Respir J 2010
Jeon & Murray. PLoS Med. 2008



Martineau et al. PNAS 2011



Martineau et al. PNAS 2011

IPT & ART

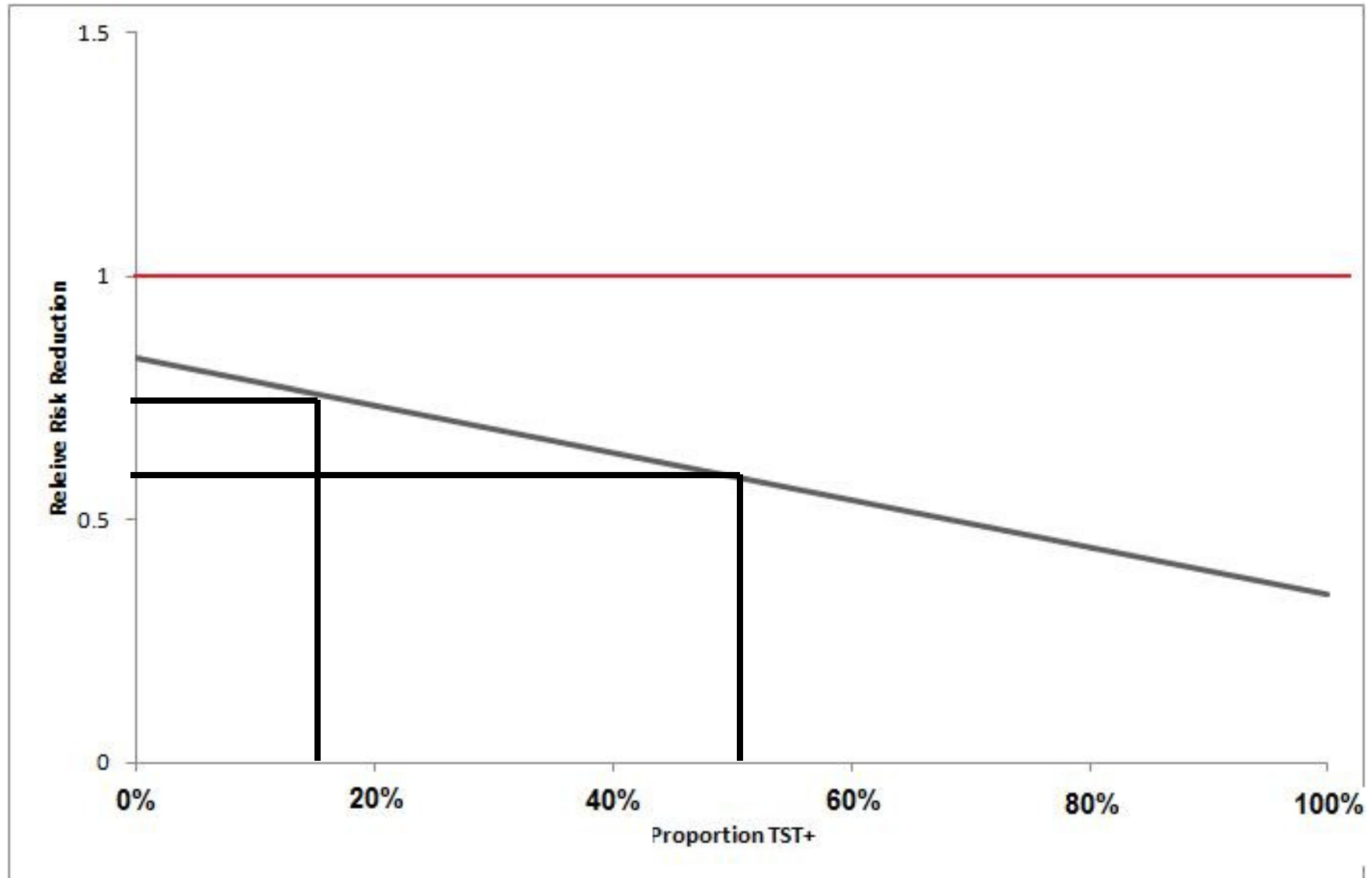
- Benefits of IPT
 - Short course 6-12 months
 - Long course 36 months
 - Importance of TST
- Benefits of ART
- Benefits of IPT + ART
- Costs of both
- What to do?

Short course IPT

- 33% reduction in TB
 - TST +ve 62% (25% reduced mortality)
 - TST –ve 11%
- No overall mortality benefit
- Short term benefit (1-2 years)

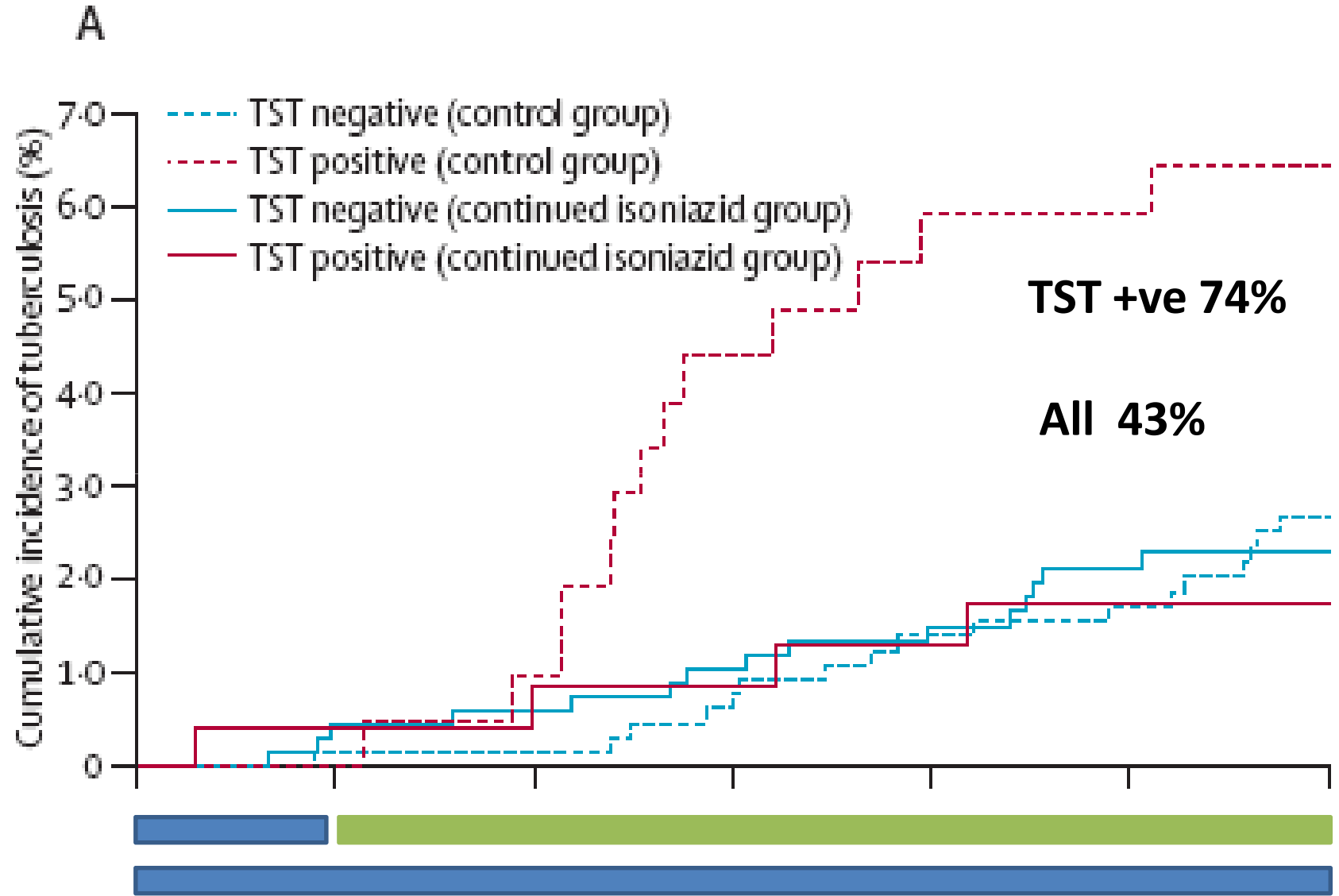
Akolo C, et al. Treatment of latent tuberculosis infection in HIV infected persons.
Cochrane Database of Systematic Reviews 2010

If TST is unavailable



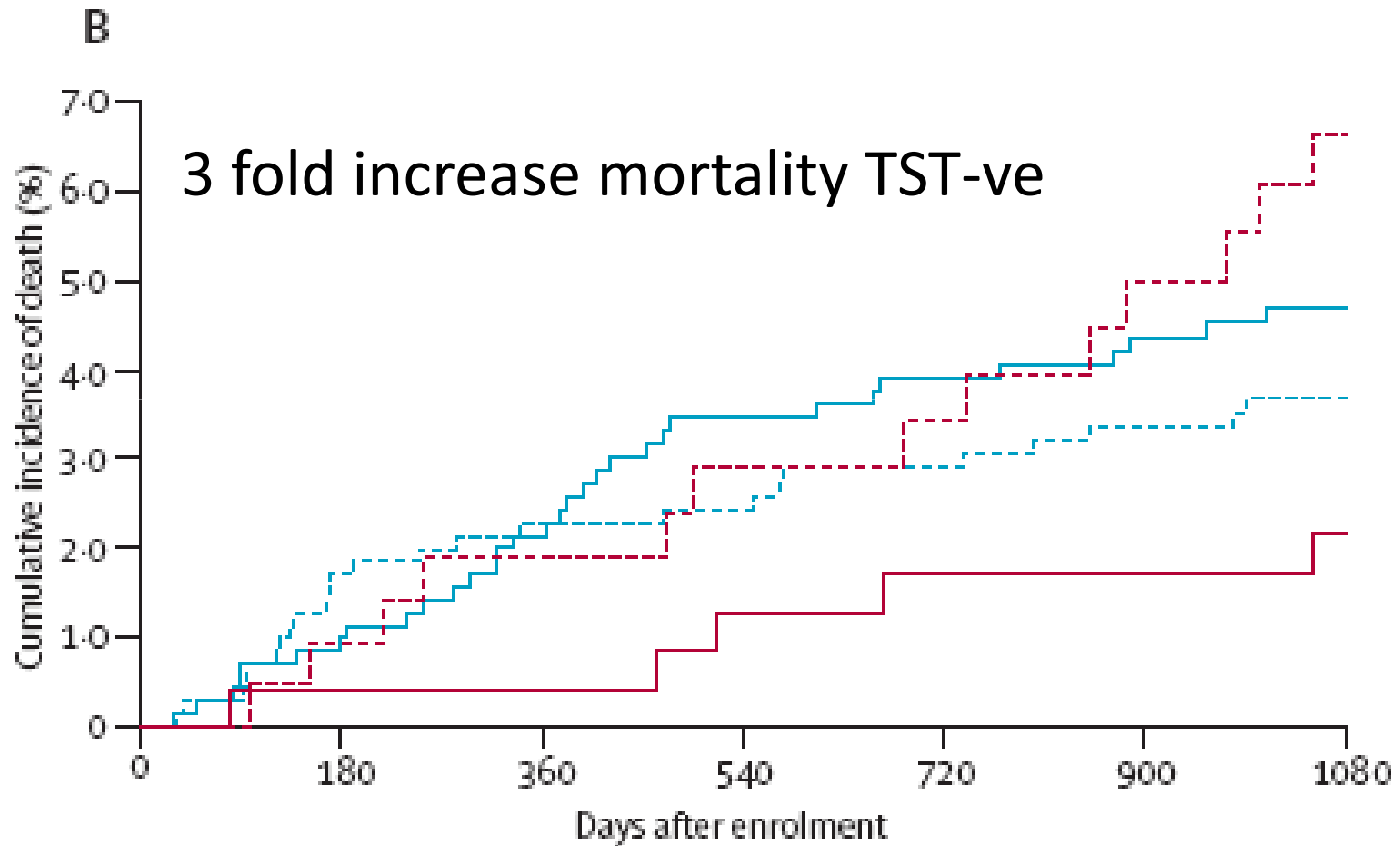
Lengthening IPT

- BOTUSA study
- 2000 patients
- Median CD4 300
- RCT 6 months vs 36 months
- 23% TST +ve



Samandari et al. Lancet 2011

Mortality

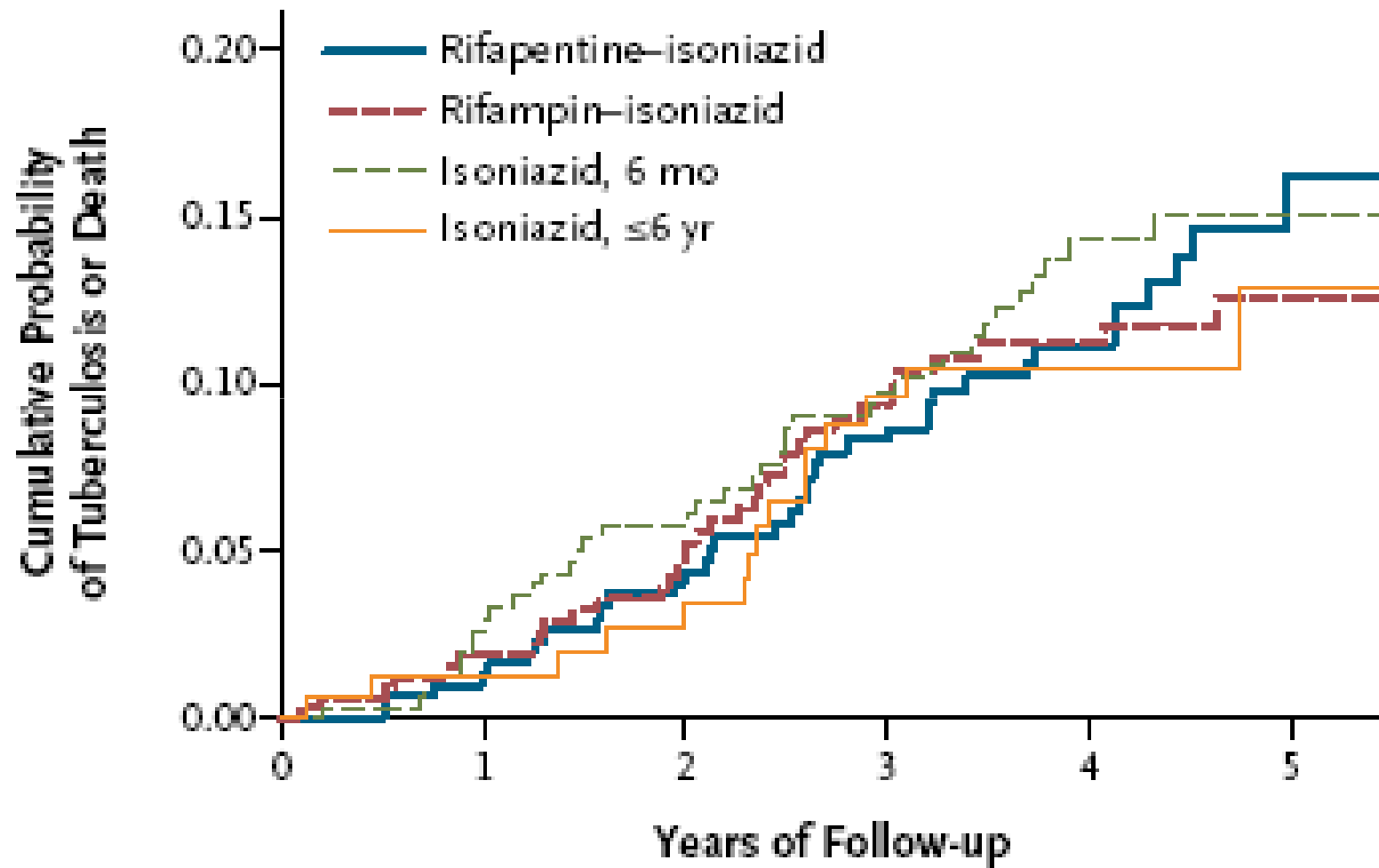


Samandari et al. Lancet 2011

Even longer IPT

- 100% TST +ve
- Median CD4 484
- 1148 patients
- 4 strategies compared
- 6 months vs 6 years

ITT analysis



Results

- All regimens equal in ITT
- High drop out rate
- On treatment analysis 58% reduction in continuous IPT

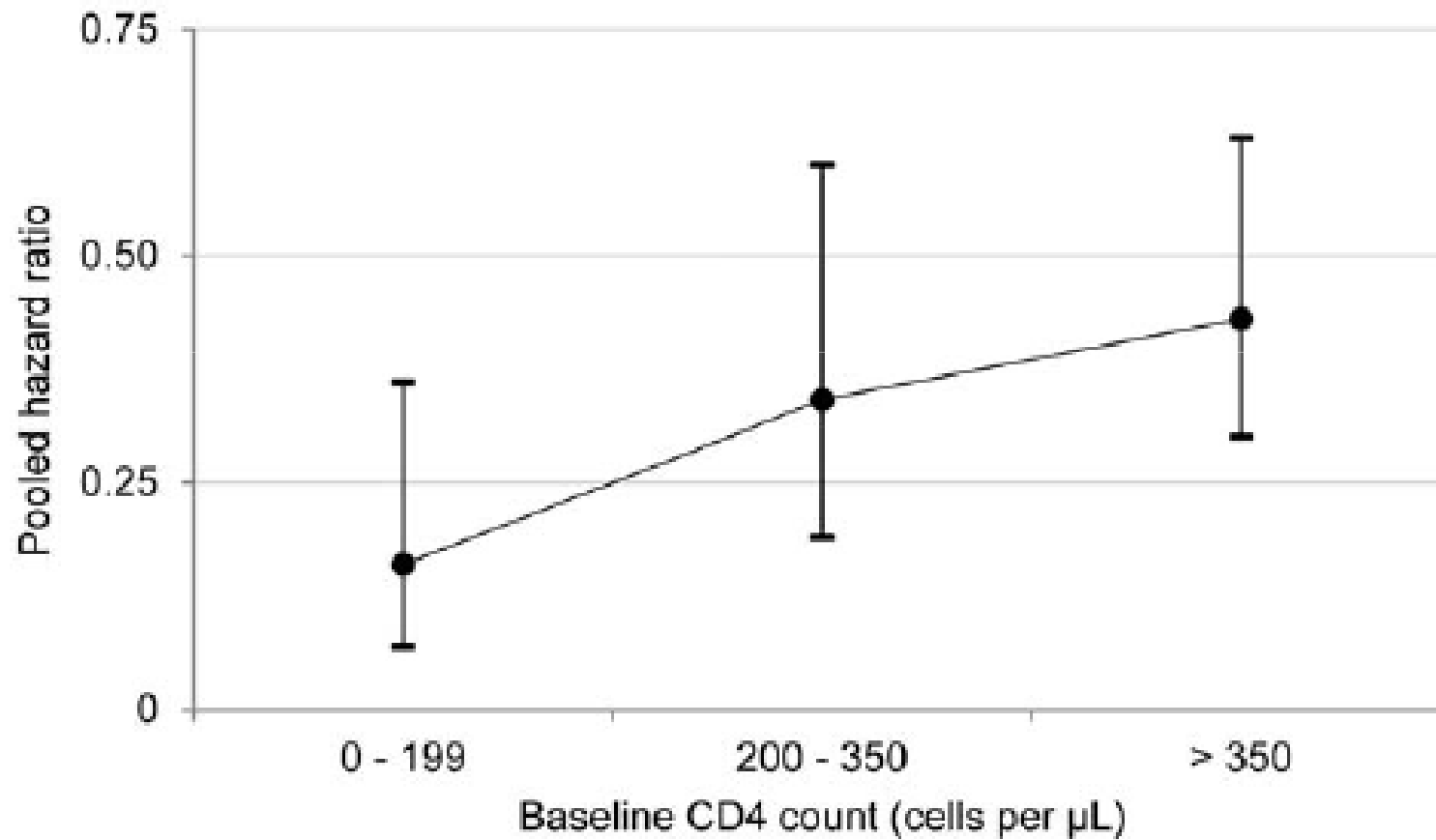
Added benefits of IPT

- Package of care includes
 - Case finding
 - Active follow-up
 - Retention in care

ART for TB prevention

- TB incidence post ART initiation
- 11 studies
- 65% reduction
- Any CD4 nadir

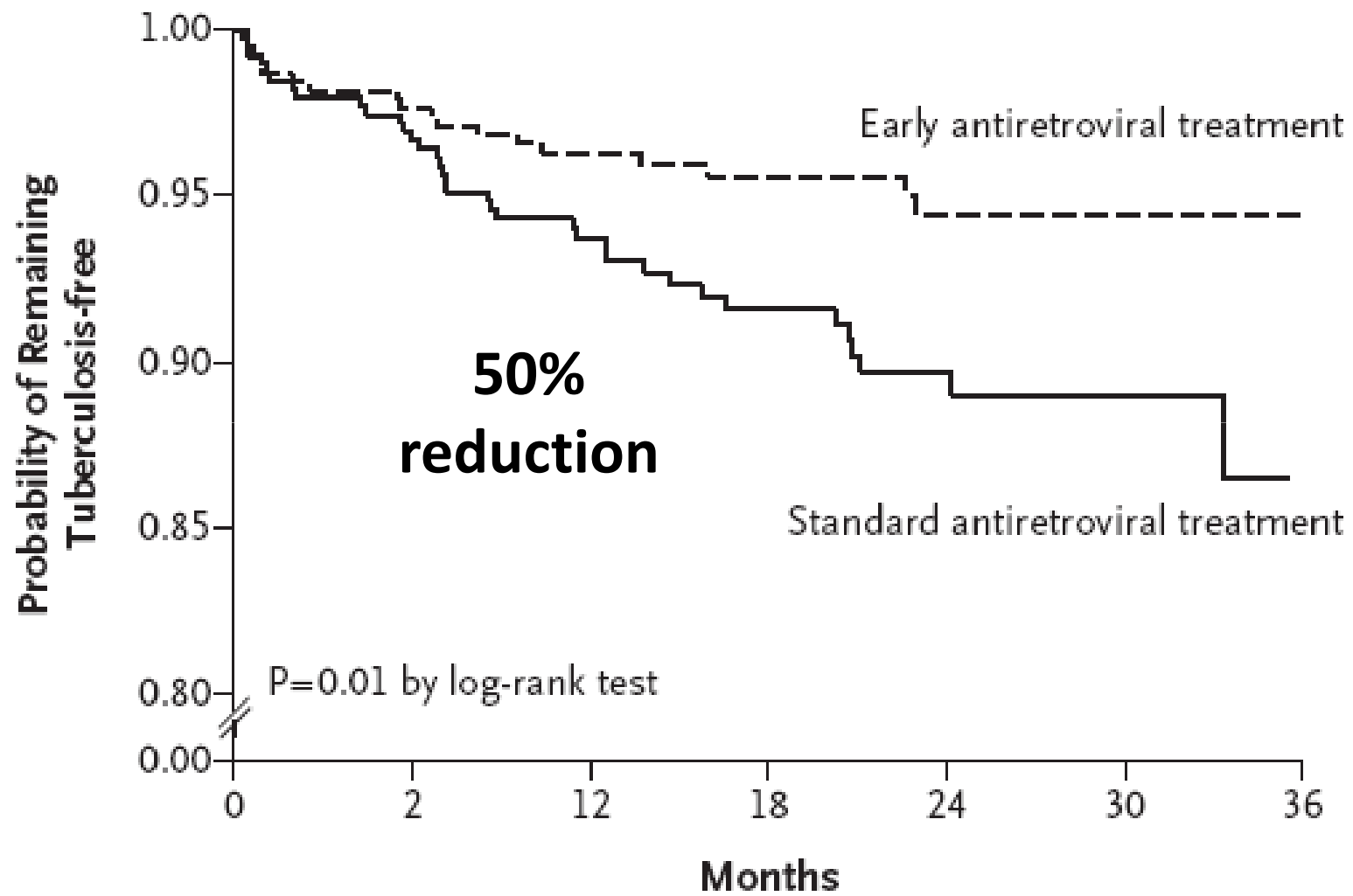
Results



Suthar et al PLoS Med 2012

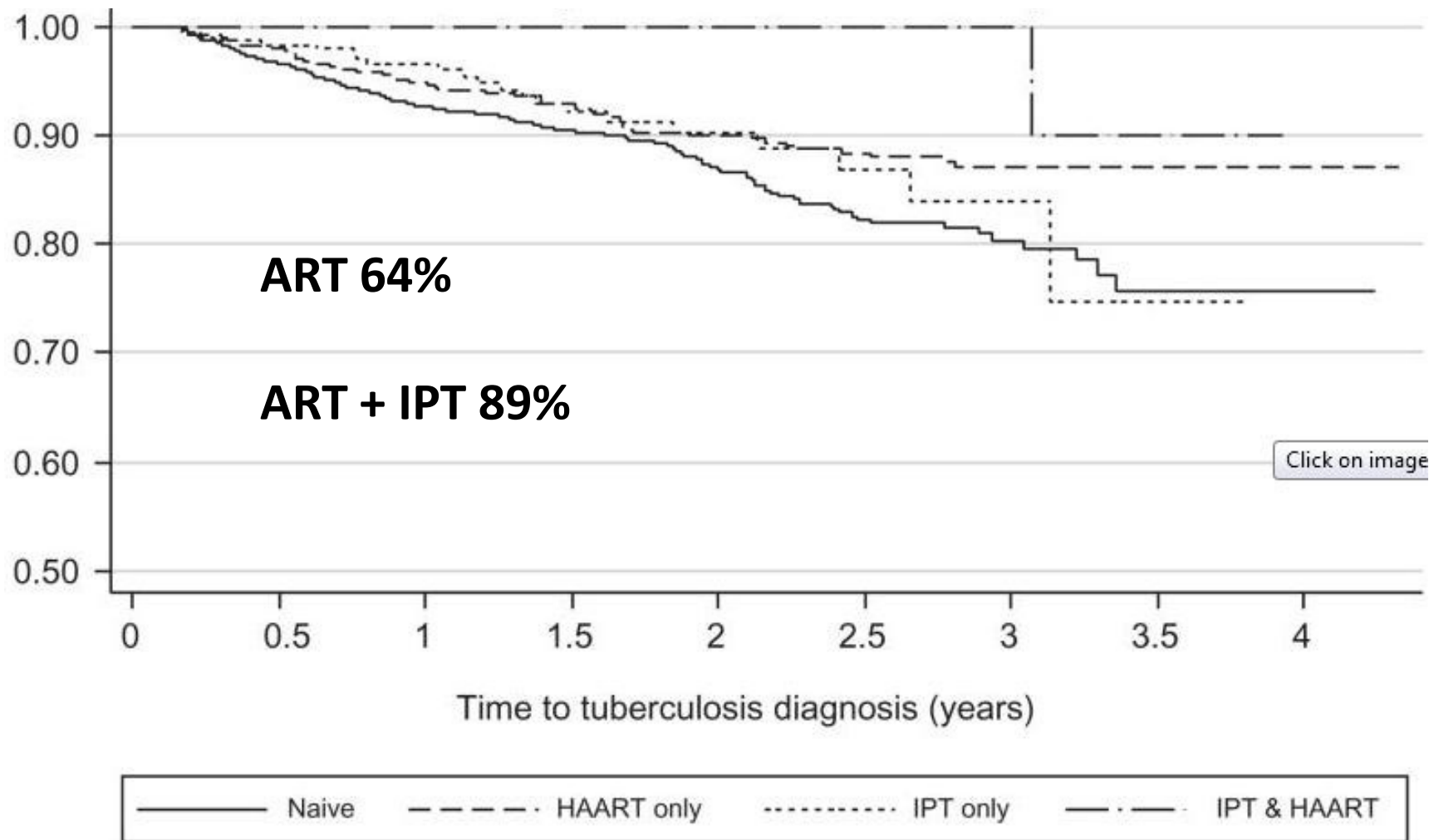
Randomised data

- Immediate vs delayed ART
- 816 patients
- Starting CD4 280 vs 166
- IPT if TST +ve



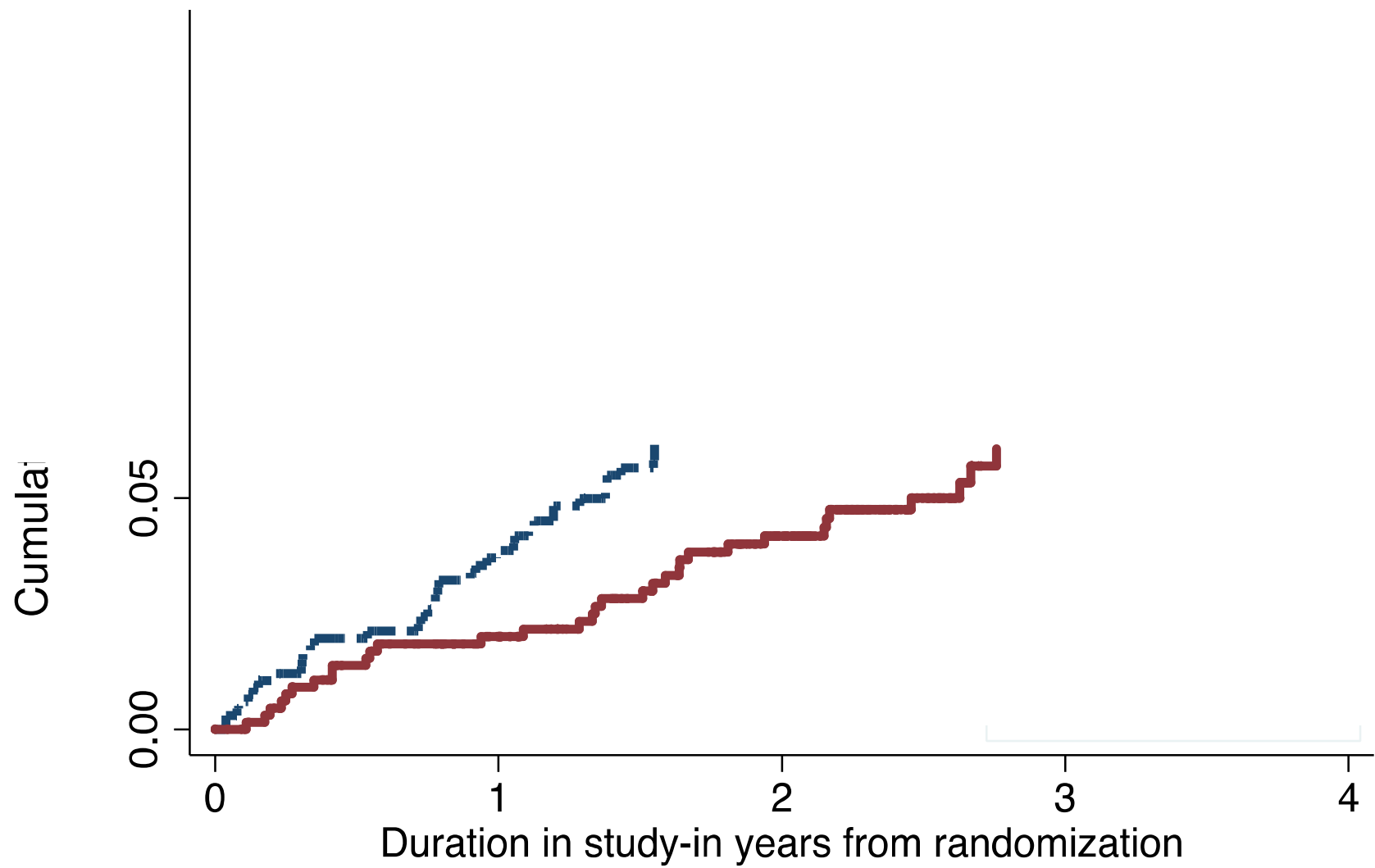
Add IPT to ART

Prospective cohort



Randomised data

- 1300 + patients
- 12 months INH vs placebo
- 72% ART established
- Median CD4 216



Rangaka et al AIDS Washington 2012

Summary

- Short course IPT works – TST helpful
- Longer works better – TST essential
- ART also works
- INH adds benefit to ART

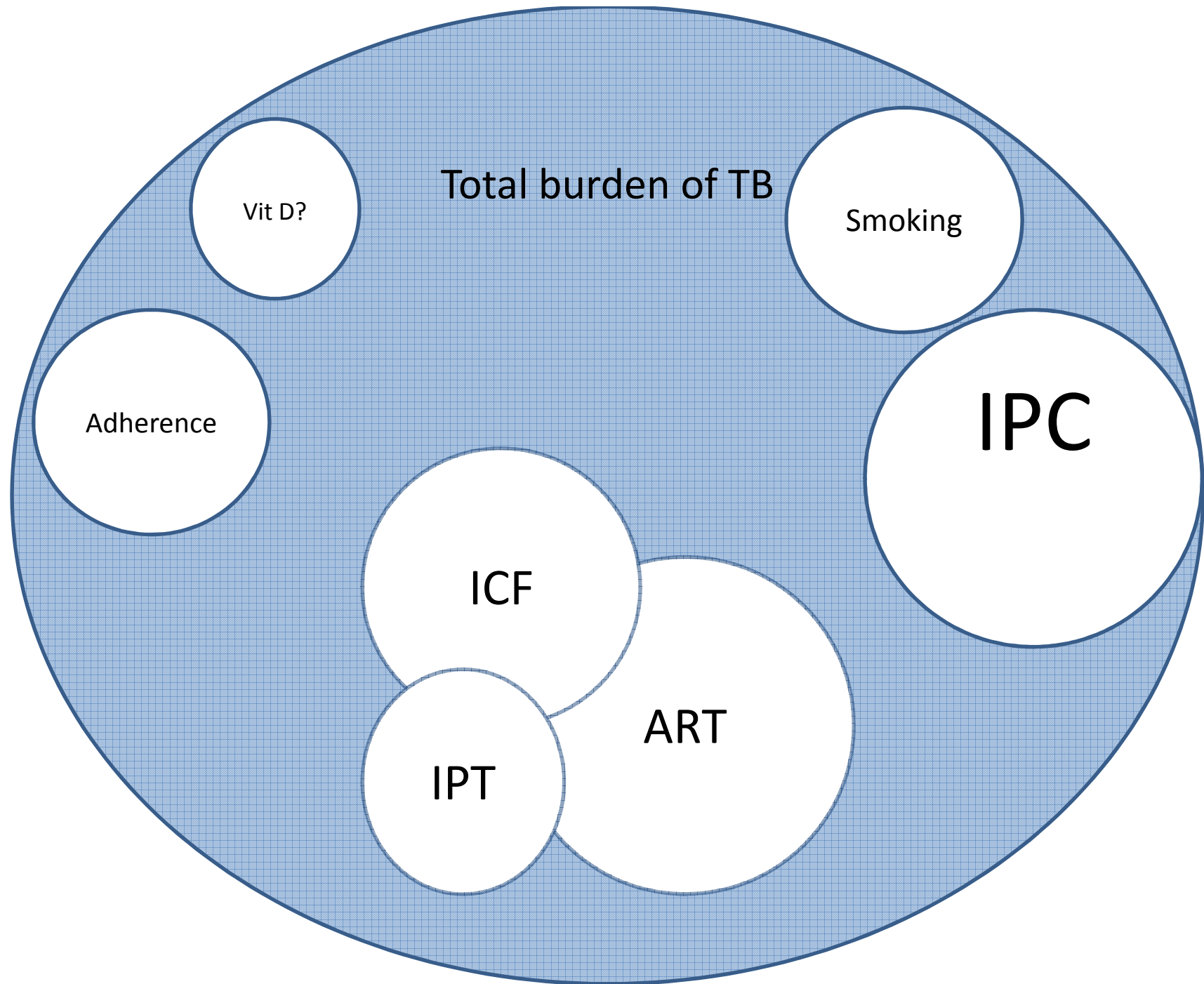
Guidelines

- WHO
 - 6/12 +/- TST strong
 - 36/12 +/- TST conditional
- RSA
 - 6/12 +/- TST
- WC
 - 6/12 all
 - 36/12 TST +ve

In a perfect world

- All other I's done perfectly
- TST
- 36 months IPT for +ve's

In an imperfect world prioritise



Comparing benefits

Rx	Control incidence /100 person years	RRR	ARR	NNT
Short INH	6	33	2	50
Long INH (TST +ve)	2.2	74	1.65	61
Earlier ART	4	50	2	50
INH + ART	3.6	36	1.3	77

Comparing costs

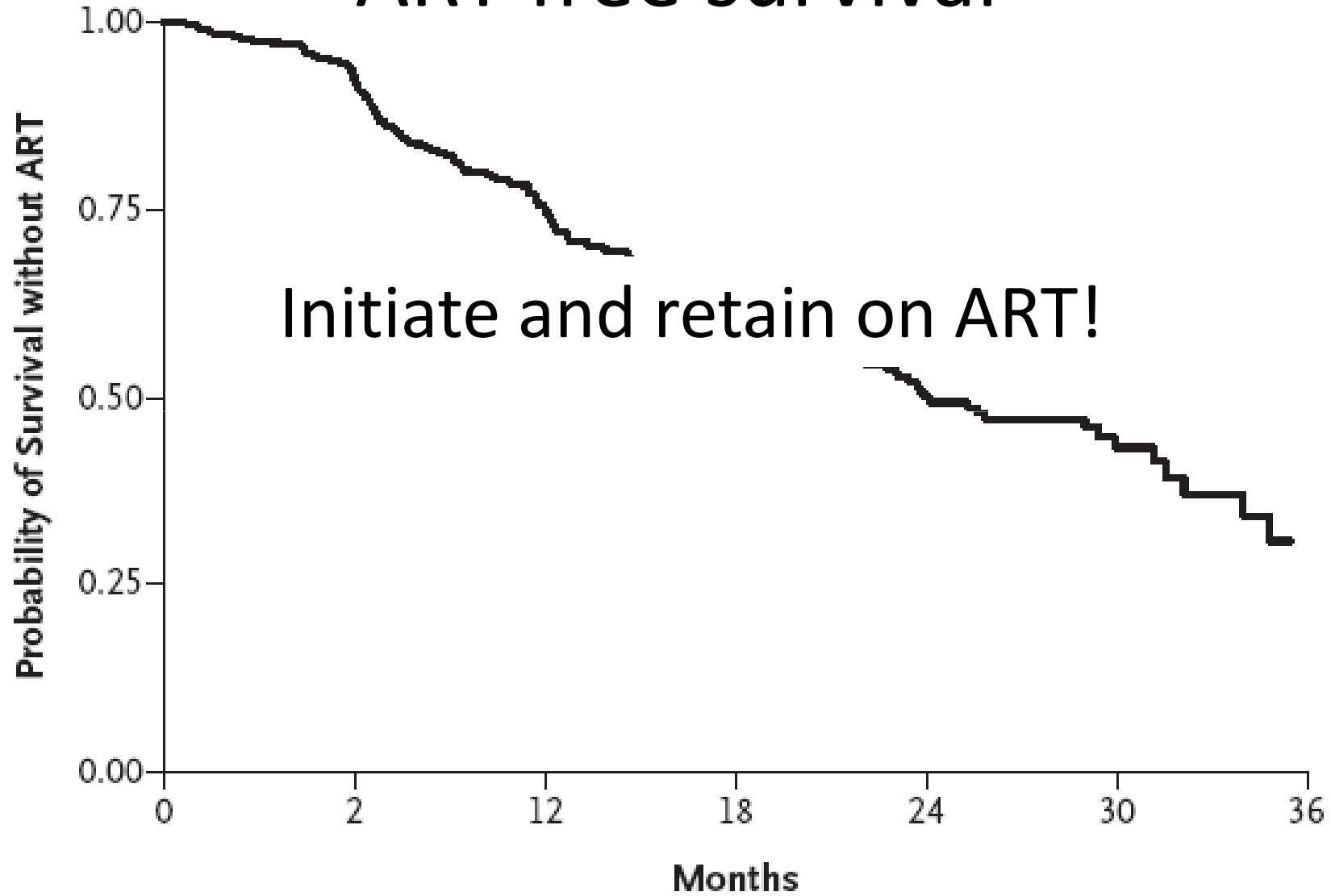
- ART initiation
 - Programme exists
 - Scale up costs
- Adding IPT to ART
 - Use current infrastructure
- Short / long course IPT
 - New programme
 - Nursing posts
 - TST

Where is the bang for your buck?



"Bummer of a birthmark, Hal."

ART free survival



If there are resources left

- Add IPT to ART
 - (TST & duration?)
- IPT for ART ineligible patients
 - Nurse led vertical programme?
 - Lay healthworker driven
 - Include in comprehensive services

Thank you